

REMARKS

Responding to the outstanding Office Action a number of amendments have been made to the Specification to address various grammatical objections raised by the Examiner. A replacement Drawing sheet has been submitted herewith. In view of various rejections pursuant to 35 USC 112 Applicants have presented a new claim program.

Upon review, it appears that the Examiner's objections to page 4, lines 19, 23 and 29, page 5, lines 5, 8, 13, 18, 19, 20, 23, 24, 30 as well as page 6, line 14 are not well founded and are inconsistent with contemporary idiomatic English as used in patent applications. In each instance the absence of the indicated identification numeral referred to by the Examiner does not in any way introduce any ambiguity or uncertainty into the application. One of skill in each instance would incorporate the requisite missing numeral to go with the indicated letter, as noted above, given contemporary English usage. It is respectfully requested that this objection be withdrawn.

Embodiments of the present invention provide very inexpensive gas detectors having a unitary structure. A sensing cell can be combined with one or more perforated metal condensing members located adjacent to an inflow port into to the sensing cell.

As fluid to be sensed passes through openings in the condensing elements, water vapor can be expected to condense out onto the condenser such that the relative humidity of gas which enters the sensing chamber, preferably by diffusion, is reduced. Reduction of the relative humidity of the inflowing gas below the dew point in the sensing chamber will minimize or eliminate condensation in the sensing chamber enabling the sensor to function as expected.

A plurality of metallic condensing elements can be stacked spaced apart from one another adjacent to the inflow to the sensing chamber. One or more filters can be incorporated. In one disclosed embodiment one of a plurality of perforated condensing

members can be sandwiched between first and second different filters. One filter can be provided to exclude particulate matter. Another filter can be provided which limits the inflow of molecules so as to preferably pass only molecules of interest.

The above described structure can be implemented in a common housing. Because of the diffusion based nature thereof it does not require pumps, pipes, conduits or the like.

Unlike the claimed structures, the systems of Matthews et al. and Williams et al. are pumped systems which include a plurality of spaced apart elements connected by tubing, pipes or the like. For example, Matthews et al. incorporates pump 62. Williams et al. incorporates pump 555.

Japanese patent document 61281966A discloses a plurality of interconnected blocks, also quite unlike the claimed structure, without any detail as to the structure of the condenser 11, filter 12 or sensing element 13. It is clear however, that the '966 disclosure contemplates separate interconnected elements 11, 12 and 13, condenser, filter and sensing element therein.

Tong et al. merely discloses a variety of prior art cold traps which clearly do not lend themselves to be integrated into a unitary detecting product.

Sun et al. incorporates a sintered metal filter element 120 which provides for diffusion of inflowing gas. The element 120 is combined with a removable exterior resin filter 122. Water vapor might very well condense on the adjacent surfaces between the sintered element 120 and the resin filter 122. However, that structure or mode of operation is quite unlike the claimed structure. Sintered element 120 provides for diffusion of gas thereto as does the filter 122.

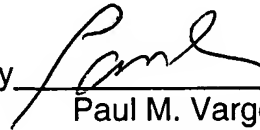
Appl. No.: 10/701,036
Amendment A
Reply to Office Action of April 21, 2005

For at least the above reasons, the pending claims are allowable. Allowance of the application is respectfully requested.

Respectfully submitted,

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By



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